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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/041,685 03/13/98 CULLINAN

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IM22/0816

EXAMINER

PRINCE, F

ART UNIT

PAPER NUMBER

1724

10

DATE MAILED:

08/16/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/041,685

Applicant(s)  
Cullinan et al.

Examiner  
Fred Prince

Group Art Unit  
1724



☐ Responsive to communication(s) filed on \_\_\_\_\_

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 10-29 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 10-29 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Apr 11, 2000 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☒ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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*Response to Arguments*

1. Applicant's arguments with respect to claims 10-29 have been considered but are moot in view of the new ground(s) of rejection, necessitated by applicant's amendment.

*Specification*

2. The substitute specification filed April 11, 2000 has not been entered because it does not conform to MPEP § 608.01(q), which requires the submission of a marked-up copy which shows additions to and/or deletions from the original specification, it does not conform to 37 C.F.R. 1.125 which requires that applicants certify that there is no new matter, and moreover, the specification is not entered because it is replete with new matter.

Instances of new matter -

there is no disclosure in original specification of "alternating venturis" and vortices having a "variable speed";

there is no disclosure for "providing an endemnic or seeding biofilm" and using

*Pseudomonas* or sulfur-reducing bacteria;

there is no disclosure of the speed of the vortices being determined by the angle of the vanes;

there is no disclosure of the cylindrical members preventing lighter-than-liquid particles or heavier-than-liquid particles from moving horizontally;

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there is not disclosure of the cylindrical members increasing the retention efficiency of particles;

there is no disclosure of greater concentrations of biofilm on trailing surfaces relative to flow, nor is there a disclosure of the vertical axis not altering the principle direction of waste liquid flow.

Further, the abstract is not entered as it contains new matter indicated above, as well as being objected to for being too long as it contains more than 250 words.

### *Drawings*

3. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on April 11, 2000 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.118 states that matter involving a departure from or an addition to the original disclosure cannot be added to the application after its filing date. The original disclosure does not support the showing of "variable speed vortices 26".

Appropriate is required.

### *Priority*

4. Applicant has claimed priority under 35 U.S.C. 119(e) and 120, which is not permissible. However, applicant may claim priority under either 35 U.S.C. 119(e) or 120. If applicant desires priority under 35 U.S.C. 119(e) or 120 based upon a previously filed provisional application,

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specific reference to the earlier filed application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. For a 119(e) priority claim, the reference should state, "This application claims the benefit of U.S. Provisional application...". For a priority claim under 35 U.S.C. 120, the reference should state "This application is a (continuation, continuation-in-part, etc.) of U.S. Provisional application...".

5. Acknowledgment is made of applicant's claim for foreign priority based on an application listed as "on file". It is noted, however, that applicant has not filed a certified copy of the application as required by 35 U.S.C. 119(b), nor does the oath or declaration identify the application number and filing date.

#### ***Oath/Declaration***

6. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It was not executed in accordance with either 37 CFR 1.66 or 1.68.

It claims priority under 35 U.S.C. 119(e) and 120.

It does not identify the application number, filing date, and country of the foreign application.

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***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 10 and 21, respectively, in the original specification there is no disclosure of "alternating venturis and variable speed vortices" as recited.

Regarding claims 17, 18, and 28, there is no disclosure of *Pseudomonas* species bacteria or sulfur-reducing bacteria.

Regarding claims 19, 20, and 29, there is no disclosure of "indemnic" or "seeding" biofilm.

Claims 11-16 and 22-27 are rejected as depending from rejected claims.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

10. Claims 10-13 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Brebion (see col. 2, lines 41-50; col. 3, lines 28-39; Figs. 6 and 13).

Brebion teaches a waste liquid treatment system having a plurality of flow control elements having "fins" and "vanes", including eight "vanes".

It is submitted that it is inherent for some of the surfaces to have biofilm on them since the surfaces are part of filtering systems using microbes.

Regarding the system creating "alternating venturis and variable speed vortices" or using the claimed types of biofilms, it is noted that these limitations appear to be method steps and/or limitations which fail to further structurally define the instantly claimed water treatment system, and as such, the limitations are not given patentable weight. It is not seen that such steps and/or limitations, per se, impart or add any additional structure to the flow control surfaces of Brebion.

11. Claims 10, 11, and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Couture (see col. 1, lines 46-53; col. 2, lines 48-63; Figs. 1 and 3).

Couture teaches a waste liquid treatment system having a plurality of flow control elements having "fins" and "vanes", including eight "vanes".

It is submitted that it is inherent for some of the surfaces to have biofilm on them since the surfaces are part of filtering systems using microbes.

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Regarding the system creating “alternating venturis and variable speed vortices” or using the claimed types of biofilms, it is noted that these limitations appear to be method steps and/or limitations which fail to further structurally define the instantly claimed water treatment system, and as such, the limitations are not given patentable weight. It is not seen that such steps and/or limitations, per se, impart or add any additional structure to the flow control surfaces of Couture.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References I-K are submitted to show the state of the art.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

A handwritten signature in black ink, appearing to read "David A. Simmons", followed by a long horizontal line.

**David Simmons**  
**Supervisory Patent Examiner**  
**Art Unit 1724**

FP  
Fred Prince  
August 14, 2000